

# Conservation Update

## St. Clair Region Conservation Authority

November 2017

### DuPont Awards Grant to SCRCA's Conservation Education Program



*Steve Arnold, Authority Chair, receiving the donation from du Pont St. Clair River Site Plant Manager, Rudy Bhola*

E.I. du Pont Canada Company – St. Clair River Site awarded the SCRCA with a “Clear into the Future Grant.” This generous donation will help support the SCRCA's Conservation Education Program that teaches youth in our community about the importance of our natural world.



*Staff ran “Ag in the Classroom” education stations at the Forest and Brigden Fall Fairs where they taught local students about soil health and the importance of trees on farms.*

### Fall TD Tree Days

This fall, SCRCA staff organized two TD Tree Days events with funding from the TD Friends of the Environment Foundation (TD FEF) in collaboration with local TD Branches as well as the Municipality of Strathroy-Caradoc and the City of Sarnia. The first event was held on September 16th in Strathroy where over 70 volunteers planted 150 native trees in Alexandra Park and Cuddy Sports Complex. The volunteers were largely made up of TD employees and the local Strathroy and Mt Brydges Scouts and Guides.

For the TD Tree Day in Sarnia on October 21st, 25 adults and 10 children helped plant, mulch, and water 150 native trees along the Howard Watson Nature Trail in just over an hour.



*A group of 70 volunteers came out for TD Tree Days in Strathroy and planted 150 native trees*



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*“working together for a healthy environment”*

## SCRCA Receives Water Monitoring Equipment from MNR

Through a data sharing agreement with the Surface Water Monitoring Centre at the Ministry of Natural Resources and Forestry (MNR), staff at St. Clair Conservation have secured equipment that will improve the monitoring of precipitation and flow conditions across the watershed. Equipment including air and water temperature sensors, snow depth sensors, data loggers, and a weighing precipitation bucket will assist staff with flood forecasting as well as monitoring changes in trends attributed to climate change.



*New meteorological equipment installed at the AW Campbell Conservation Area in Alvinston*

## Training Course Held for Tree Seed Collector Mentorship Program

In an effort to aid in the future sustainability of local forestry, the SCRCA has developed a tree seed collector mentorship program with generous support from Enbridge. As part of the program, Conservation Services staff held a hands-on tree seed collector training course early this October. New collectors have the opportunity to collect local seed for the SCRCA and earn money doing so. Tree seed experts Brian Swaile and Ron Thayer led the course. Staff received overwhelming interest in the program and there was excellent turnout for the one-day course.



*Course attendees learning methods of tree seed collection*

## Studying Mussels in the North Branch of the Sydenham River

With at least 80 species of fish and at least 34 species of freshwater mussels historically found in the Sydenham River, it is considered one of the most species-rich watersheds in all of Canada – no other river in Canada has greater freshwater mussel diversity.

The Sydenham River is made up of two main branches, the East Branch and the North Branch. The East Branch has long been recognized as a hotspot for mussel diversity whereas the North Branch has often been overlooked and understudied. In order to work on closing these knowledge gaps, the SCRCA's biology staff conducted 28 mussel surveys covering 14km of the North Branch in 2017 and plan to study another 14km in 2018.

This year alone, staff captured and processed 5,282 live mussels in addition to 3,040 dead mussels thereby adding over 8,000 new data points to the North Branch of the Sydenham. Twenty-one species were observed including five Species at Risk (Round Pigtoe, Salamander, Mapleleaf, Lilliput, and Rainbow). This important research project is being funded by the Ontario Trillium Foundation (OTF) and the Habitat Stewardship Program (HSP) for Species at Risk.



*SCRCA biology staff performing surveys of freshwater mussels in the North Branch of the Sydenham River*

## Successful Year for Nesting Habitat Program that Aids Endangered Snake

Over the past six years, SCRCA biology staff have been working to help the local population of Eastern Foxsnake, an endangered and globally rare species, by installing artificial nesting boxes on Authority owned and managed lands. This work is made possible through funding from the Ministry of Natural Resources and Forestry's Species at Risk Stewardship Fund. 2017 was a very successful year for this program, a total of 175 eggs were observed in just two nesting boxes. This high density of eggs is the result of communal nesting, where several females will lay their eggs in the same location. Most females will lay a single clutch of eggs, which can range in size from 7 to 29 eggs. Eggs are deposited by females in late June to mid-July and hatch between late August and mid-September.



*An artificial snake nesting box installed on Authority land*

In late September, biology staff found an unhatched clutch of 10 eggs in one of the nesting boxes. As it was late in the season, the eggs were incubated at Salthaven Wildlife Rehabilitation and Education Centre to ensure the best chance of survival. Six young Foxsnakes hatched from the clutch and were released at the nesting site where they were originally found. The success of this year's nesting boxes highlights the need for suitable nesting habitat for this endangered species.



*Left: clutch of unhatched Foxsnake eggs found in one of the SCRCA's artificial nesting boxes*

*Right: a recently hatched Foxsnake just prior to its release*

## Children's Water Festival

Staff from the SCRCA helped out at the 9th Annual "Chatham-Kent & Lambton Children's Water Festival" that was held on October 3 to 5, 2017 at the CM Wilson Conservation Area. Staff ran educational stations for local elementary school children with the goal of fostering respect for water and encouraging environmental stewardship.



*A station at the Water Festival where students learned about aquatic insects*

## Farmshed Talk: Bio-Strips & Cover Crops

Lambton Shores champion landowner, Doug Rogers, hosted our Bio-Strips and Cover Crops Workshop on September 26th. Doug talked about his experience using no-till and cover crops to manage surface water on his farm. Mike Belan, of Oil Springs, also talked about his experience with interseeding cover crops into corn and wheat, and "planting green" (planting into a living crop). After presentations from both farmers, attendees had a chance to see Doug's bio-strips, interseeded soybeans, and the modifications he has made to his interseeder. SCRCA's Kelli Smith finished the day with a presentation on how water bugs—like soil bugs—can inform you about the health of your farm.



*Doug Rogers explaining his bio-strips – he plans to "plant green" into the red flagged rows in the spring, which will winter-kill. The strips marked with blue flags will remain living over winter and into next year.*

## Memorial Forest Dedications

In partnership with the St. Clair Region Conservation Foundation, the first annual Denning's Memorial Forest Dedication serving the West Elgin and Chatham-Kent area was held on Sunday September 17th at the Keith McLean Conservation Lands in Morpeth. More than 60 people were in attendance. A tree was planted in tribute of the families' loved ones and Steve Arnold provided remarks on behalf of the Foundation. Donations received from Denning's support our forestry and education programs at St. Clair Conservation.



*Steve Arnold speaking at the first Denning's Service at Keith McLean Conservation Lands*

The Foundation's dedication was held on September 24th at the Lorne C. Henderson Conservation Area. Duncan Skinner and Steve Arnold provided remarks. Over 100 people were in attendance. From September 2016 to August 2017, 110 trees were dedicated through individual donations to the program. To date, a total of 2,017 trees have been dedicated through the Foundation's Memorial Forest Program.



*The family of Robert Maw ceremonially planting an oak tree during the Foundation's Dedication Service*

## Staff Hold Reptile at Risk and Water Quality Indicator Education Programs for Local Students

This fall, the SCRCA's Biology and Education staff organized two educational programs for local elementary and highschool students.

The first program was held at the Perch Creek Habitat Management Area near Sarnia. Students enrolled in the Environmental Resource Management course at the Great Lakes Secondary School in Sarnia were introduced to the reptile species at risk in Ontario and watershed management techniques. Staff from the SCRCA educated students on identification, biology, and the environmental significance of reptiles in Ontario, and explained how physical, chemical and biological indicators are used to determine the health of a watershed. Students were given a guided hike to Perch Creek where they collected aquatic bugs, assessed stream features, viewed fish captured from minnow traps, and obtained water quality data.



*Staff exploring the biological treasures of a nearby creek with students from Hillside Public School*

Students from Hillside Public School from the Chippewas of Kettle and Stony Point First Nation had a similar opportunity to learn about species at risk and aquatic resources first hand. Students spent time exploring a nearby creek and the many biological treasures it holds while also learning about conservation and how to protect species at risk. Grants from the Ministry of Natural Resources Species at Risk Stewardship Fund (SARSF) have contributed greatly to making these types of programs possible.

## Aquatic BioBlitzs

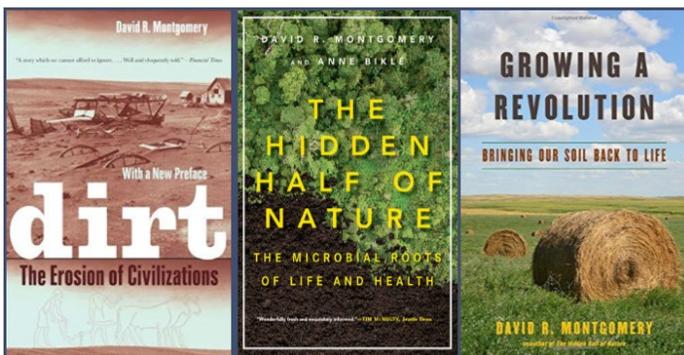
A BioBlitz is a detailed study of biodiversity in a specific location over a specified period of time. SCRCA biology staff organized two aquatic BioBlitzs this year, the first was held at the Warwick Conservation Area and the second was at the A.W. Campbell Conservation Area. Staff and participants looked for fish, mussels, stream critters, and more. Funding for the BioBlitzs was provided by TD Friends of the Environment Foundation.



*Participants  
at the AW  
Campbell CA  
Aquatic BioBlitz*

## Soil and Crop Talk this December with David R. Montgomery

On December 12th at 6:30pm, professor and author, David R. Montgomery will be joining us at the Sarnia Arena to discuss his research combining ancient wisdom with modern science to make the case for a vision where agriculture becomes the solution to environmental concerns. David will show evidence that no-till, cover crops, and diverse crop rotations can sustain the indispensable soil microbial ecosystem and in turn, a farmer's crops and livelihood.



This evening talk is being funded in part through the federal-provincial-territorial Growing Forward 2 initiative and the Ontario Soil and Crop Improvement Association through Great Lakes Agricultural Stewardship Initiative (GLASI). For more information and to register, contact Laura Biancolin, Agricultural Outreach Technician at 519-245-3710 x218 or lbiancolin@scrca.on.ca.

## OCEF Supports SCRCA Water Quality Monitoring and Tree Planting Programs

The SCRCA has been notified by the Ministry of Environment and Climate Change (MOECC) that \$23,378 will be allocated from the Ontario Community Environment Fund (OCEF) to support the SCRCA's Aquatic Monitoring and Tree Planting Programs for 2018. OCEF uses the funds collected from environmental fines and penalties to support projects, whenever possible, in the watershed where a violation occurred. These SCRCA programs were also supported by OCEF in 2017.

## Soil Health Conference Set for February 15, 2018

The SCRCA's Soil Health Conference is scheduled for February 15, 2018, in Chatham ON. There will be presentations from, Frank Gibbs, David Lobb, Wendy Taheri, and Dale Cowan as well as from local researchers. During the farmer panel discussions, 15 local farmers will be sharing their experiences. Panel topics will include cover crops, reducing tillage, rotational grazing, erosion control methods, soil stewardship on big acres, planting green, and making interseeding work.

The conference is being funded through the Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health (COA) and the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA). For more information and to register, contact Laura Biancolin, Agricultural Outreach Technician at 519-245-3710 x218 or lbiancolin@scrca.on.ca.



*Interseeded corn, a topic that will be covered during the farmer panel discussions*

## Next Conservation Authority Board Meeting

Thursday, November 9, 10:00 a.m.

member of

### St. Clair Region Conservation Authority

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